

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application:

Listing of Claims:

Claims 1-3 (canceled)

4. (Currently Amended) A method of data hiding comprising the steps of:
providing a message;
generating an encrypting sequence based on an encrypting key;
generating an encrypted message based on the message and the encrypting
sequence;
providing a carrier signal that conveys information unrelated to the encrypted
message;

embedding the encrypted message into the carrier signal by performing an
exclusive-OR of the encrypted message with a first portion of the carrier signal; and

~~The method of claim 1, further comprising the step of embedding the first portion~~
of the carrier signal into a second portion of the carrier signal.

5. (Original) The method of claim 4, wherein the carrier signal is a digital image having a plurality of color planes, the first portion of the carrier signal is an LSB plane of

a first color plane, and the second portion of the carrier signal is an LSB plane of a second color plane.

Claims 6-13 (Canceled)

14. (Current Amended) A method of data hiding comprising the steps of:
providing an encryption key;
generating a ~~The method of claim 11, wherein the encryption sequence is~~
substantially pseudo-random encryption sequence based on the encryption key;
providing a carrier signal that conveys information unrelated to the encryption
key; and
embedding the encryption sequence into the carrier signal.

15. (Original) The method of claim 14, wherein the encryption sequence is generated based on a linear feedback shift register.

16. (Currently Amended) The method of claim 14, wherein the step of embedding the encryption sequence includes performing an exclusive-OR of the encryption sequence with a portion of the carrier signal.

17. (Currently Amended) A method of data hiding comprising the steps of:
providing an encryption key;
generating an encryption sequence based on the encryption key;

providing a carrier signal that conveys information unrelated to the encryption key;
embedding the encryption sequence into the carrier signal ~~The method of claim 11, further comprising the steps of~~ transmitting the carrier signal including the embedded encryption sequence to a receiving location,
extracting the encryption sequence from the composite signal at the receiving location, and
deciphering the encryption sequence to obtain the encryption key at the receiving location.

18. (Original) The method of claim 17, further comprising the steps of encrypting a message using the encryption key to generate an encrypted message at the receiving location and transmitting the encrypted message from the receiving location.

19. (Original) A method of data hiding comprising the steps of:
embedding an encrypted message into a first portion of a carrier signal; and
embedding message extraction information into a second portion of the carrier signal for extracting the encrypted message from the first portion of the carrier signal.

20. (Original) The method of claim 19, wherein the step of embedding an encrypted message includes performing an exclusive-OR of the encrypted message with the first portion of the carrier signal.

21. (Original) The method of claim 20, wherein the step of embedding message extraction information includes performing an exclusive-OR of the first portion of the carrier signal with the second portion of the carrier signal.

22. (Original) The method of claim 21, wherein the first and second portions of the carrier signal are first and second bit-planes of a digital image.

Claims 23-25(Canceled)

26. (Currently Amended) A data hiding apparatus comprising:
an encryption sequence generator configured to generate a ~~The method of claim 25, wherein the encryption sequence generator is configured to generate a substantially~~
pseudo-random encryption sequence based on an encrypting key;
an encrypted message generator configured to generate an encrypted message
based on the encryption sequence and an input message; and
an encrypted message embedder configured to embed the encrypted message
into a carrier signal..

claims 27-28(Canceled)

29. (Original) A data hiding apparatus comprising:
an encryption sequence generator configured to generate an encryption
sequence based on an encrypting key;

an encrypted message generator configured to generate an encrypted message based on the encryption sequence and an input message; and

an encrypted message embedder configured to embed the encrypted message into a carrier signal by ~~The method of claim 28, wherein the encrypted message embedder is configured to replac[[e]]ing~~ a first LSB plane of the digital image with information based on a second LSB plane of the digital image and ~~to performing~~ an exclusive-OR of the encrypted message with the second LSB plane of the digital image.